Claims:

1. A method for constructing EMI shielding around a component (12) to be embedded in a circuit board, which circuit board includes alternating conductor layers (1) and insulating layers (2), and at least a substantial portion of the component (12) is embedded inside the circuit board and around it is placed a structure (10) shielding from electromagnetic radiation, which shields against electromagnetic radiation coming from at least the direction of the circuit board, c h a r a c t e r i z e d in that the component is an optoelectronic component

-a recess (6) is formed around the embedding location of the component (12), in such a way that an insulating layer (7) is left between the embedding location of the component (12) and the recess, and in such a way that the recess is extended from the surface of the circuit board to such an insulating layer as represents the ground-reference plane (3),
-the recess (6) is filled or surfaced with an electrically conductive material (8, 9), in such a way that the material is in electrical contact with the ground-reference plane (3) and that the material essentially surrounds the component as a bezel (10) in the direction of the circuit board.

2. A method according to claim 1, c h a r a c t e r i z e d in that, when the recess (6) is formed, only the material or materials, which do not act as an electrical transmission path (2), are removed from the circuit board.

3. A method according to claim 1 or 2, c h a r a c t e r i z e d in that there is a ground-reference plan (3) under the entire area, in which the recess (6) is made.

4. A method according to any of the above claims, c h a r a c t e r i z e d in that, after the lining or filling of the recess, a cavity (11), which extends to the level of the ground-reference plane (3), is made for the component (12), and the component is embedded in the cavity that has been made.

5. A method according to any of the above claims, c h a r a c t e r i z e d in that the

component is a semiconductor component, or a passive component, such as an integrated passive component.

6. A method according to any of the above claims, c h a r a c t e r i z e d in that the electrically conductive material (8, 9), with which the recess is surfaced or filled, is a transparent, translucent, and/or flexible material.

7. A method according to any of the above claims, c h a r a c t e r i z e d in that the electrically conductive material (8, 9), with which the recess is surfaced or filled, is a conductive polymer, or a conductive glue.

8. A method according to any of the above claims, c h a r a c t e r i z e d in that the electrically conductive material (8, 9), with which the recess is surfaced or filled, is a metal.

9. A method according to any of the above claims, c h a r a c t e r i z e d in that the component (12) is electrically connected to the conductor layer (1) located below the ground-reference plane.

10. A method according to any of the above claims, c h a r a c t e r i z e d in that, at the embedding location of the component (12), a continuous or discontinuous metal layer (5) is left on the ground-reference plane, and the component is connected electrically to the metal layer.

11. A method according to claim 10, c h a r a c t e r i z e d in that the connected is made with the aid of solder or a conductive polymer or glue (13).

12. A method according to claim 10 or 11, c h a r a c t e r i z e d in that the metal layer (5) is connected electrically to the conductor layer (1) located below the ground-reference place (3).

13. A method according to claim 12, c h a r a c t e r i z e d in that the conductor layer

(1) below the ground-reference plane (3) is manufactured only after an electrical contact has been made between the metal layer (5) and the conductor layer (1).

14. A method according to any of the above claims, characterized in that the component (12) is connected electrically to a conductor layer (1) located above the ground-reference plane.

15. A circuit board, which includes

-a component (12), at least a substantial portion of which is embedded inside the circuit board, and

-a structure (10) built around the component (12), which shields against electromagnetic radiation coming from at least the direction of the circuit board,

characterized in that the component is an optoelectronic component that the structure (10) includes a recess (6) around the embedding location of the component, extending to the ground-reference plane (3), and an insulating layer between the recess (6) and the cavity (11) made at the embedding location of the component, which recess essentially surrounds the component (12) in the direction of the circuit board (12), and which recess (6) is filled with an electrically conductive material (8, 9), in such a way that the material is in electrical contact with the ground-reference plane (3).

16. A circuit board according to claim 15, characterized in that the circuit board and the bezel (10) built into it shielding against electromagnetic radiation are flexible.

17. A circuit board according to claim 15 or 16, characterized in that the recess (6) is filled with a conductive polymer or a conductive glue.

18. A circuit board according to any of claims 15 - 17, characterized in that the component (12) is electrically connected to a conductor layer (1) located below the ground-reference plane (3).

19. A circuit board according to any of claims 15 - 18, characterized in that, at the embedding location of the component (12), there is, on the level of the ground-reference plane, a continuous or discontinuous metal layer (5), to which the component is electrically connected.

20. A circuit board according to claim 19, characterized in that the component (12) is connected to the metal layer (5) with the aid of a conductive glue or conductive polymer (13).

21. A circuit board according to any of claims 15 - 20, characterized in that the metal layer (5) is connected electrically to the conductor layer (1) located below the ground-reference plane (3).

22. A circuit board according to any of claims 15 - 21, characterized in that the component (12) is connected electrically to the conductor layer (1) located above the ground-reference plane (3).